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Science and Engineering Research Canada

Contact

Investing in people, discovery and innovation

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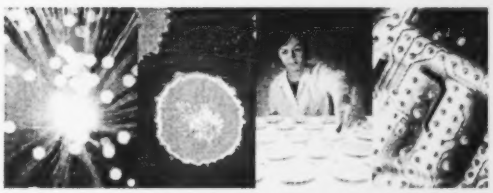

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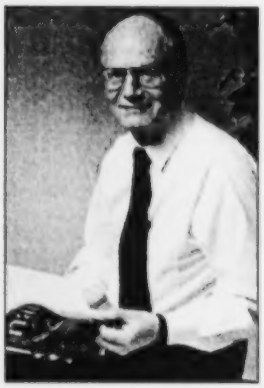

Editorial by NSERC President Tom Brzustowski

This is my last editorial in CONTACT. My appointment as President of NSERC will expire at the end of September. In October, I shall be back in the university world as a professor, having no administrative responsibilities and working in an academic area that is quite new to me. After ten years in my present position, that change provides an irresistible challenge.

At NSERC, I have had the very good fortune to be in the right place at the right time. I firmly believe that Canada's capacity for excellent research in science and engineering is rapidly moving to the new higher level that is necessary to make our prosperity more sustainable in the rapidly changing world of the twenty-first century. This surge in national competence has been helped greatly by a fortunate conjunction between the demographic opportunity for massive renewal of professors in our universities and a consistent series of new investments in research by the Government of Canada since 1997.

NSERC has been a big factor in this success, to the great credit of its dedicated and hard-working staff and its splendid management team. I would like to think that I was able to help by being a communicator and translator, communicating the needs and values of the research community to government, and communicating the policies and expectations of the government to researchers. Less visibly, but I think equally importantly, I also tried to help in promoting connections. NSERC doesn't need to set the standards for research excellence; the research community does that itself through peer review. NSERC doesn't need to persuade industry to create wealth; that is why they are in business. But NSERC does need to help connect excellent research in Canadian universities with wealth creation in the Canadian economy. This occurs in three ways: through the employment of university graduates taught by people who are themselves adding to knowledge in important areas of science and engineering, through university-industry research partnerships leading to

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Natural Sciences and Engineering Research Council of Canada
Conseil de recherches en sciences naturelles et en génie du Canada

Canada

NSERC, now also known as Science and Engineering Research Canada, is a key federal agency investing in people, discovery, and innovation. It supports both basic university research through research grants, and project research through partnerships among postsecondary institutions, government and the private sector, as well as the advanced training of highly qualified people.

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Continued from cover page

innovations in products or processes, and through the commercialization of inventions resulting from basic research that have innovation potential. Much is being achieved in all three areas, and conditions have been created to achieve much more.

There are many people to thank for the accomplishments of the last decade. The honour roll must begin with the thousands of professors who conduct research in science and engineering in Canadian universities. Their commitment to excellence in the intellectual creative activity that is an essential element of the nation's competence makes everything else possible. Within that group, hundreds of people deserve additional gratitude. They are the volunteers who have served as peer reviewers and members of NSERC grant selection committees, setting an admirable standard for integrity and consistency. I must add special thanks to the researchers from industry, government, and countries outside Canada who have also helped in these roles. Research is globalized, and has been for centuries, and the involvement of foreign scientists in our peer-review process helps Canadian researchers attain world standards. I want also to thank those who have taken on the additional responsibility of serving on NSERC's standing policy committees on the major program groupings. They give us important advice on programs and policies that keep NSERC programs relevant and effective.

I also want to thank the tens of thousands of students: senior undergraduates, master's and doctoral students, and postdoctoral fellows, as well as the professional research staff in the universities. As members of the research teams led by the professors who are principal investigators, they carry out much of the country's research. The students do this as part of their advanced education; the research staff do it in the course of their careers. They are all highly intelligent hard-working people, committed to research and learning, and striving for excellence in playing their appropriate roles in the national effort. Canadians are very productive in science and engineering research, and that high productivity reflects wonderfully well on the quality of the students and research staff.

Next, I must thank Canadian universities collectively. Their commitment to appoint excellent researchers to replace the retiring faculty cohorts creates the conditions for long-term success. It can be difficult to assemble the resources to attract outstanding scholars to the faculty, and then support them adequately in their work, but Canadian universities have been meeting the challenge admirably.

In Ottawa, research in science and engineering enjoys the support of many Members of Parliament from all parties, and I am grateful for that. They show their support in their work on the various Standing Committees and special caucuses. Many also help by their regular attendance at the monthly "Bacon and Eggheads" breakfasts, where important recent research is showcased by scientists who are also great communicators. My thanks to the Speakers of the House and Senate who sponsor the breakfasts, and to the Partnership Group for Science and Engineering who is NSERC's partner in this venture.

Let me thank the Government of Canada for its consistent support of university research in science and engineering. My gratitude begins with the public servants in Industry Canada and the Industry Portfolio who do much of the work of developing policy papers, Memoranda to Cabinet, and the other necessities of decision-making and accountablity on behalf of NSERC, and it extends all the way up to the Prime Minister, the Minister of Finance, the Minister of Industry, and their colleagues in Cabinet. I applaud the government's willingness to launch unique initiatives, like the Networks of Centres of Excellence and the Canada Research Chairs, that have made the world sit up and take notice that Canada has both ambitions and achievements in science. The government realizes that research is one of the foundations on which

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NSERC's 2005 Synergy and Innovation Awards Go East

On October 19, NSERC will be in Halifax to present the ***2005 NSERC Synergy Awards for Innovation***. We will be celebrating university researchers and companies from across Canada who have combined their talents and strengths to transform ideas into new processes, products and services for the benefit of our economy. The event is a great opportunity to meet Canada's innovation leaders and learn more about how they are achieving their success.

NSERC will also present the winners of this year's ***Innovation Challenge Awards***. Science and engineering graduate students from across Canada are now pitching the business potential of the results of their thesis research to our expert panel who will pick the winners.

This event will be an opportunity to network in a relaxed atmosphere with senior university, corporate and government representatives, as well as with business and community leaders from across Canada.

Join us in celebrating Canada's Synergy champions and in toasting our "entrepreneurs of tomorrow."

You can reserve your tickets and tables through our Web site at www.nserc.gc.ca/synergy_rsvp or by phone at (613) 943-0309. Last year's event in Waterloo was a sell-out, so reserve your tickets now!

Location:
World Trade and Convention Centre, 1800 Argyle Street, Halifax, Nova Scotia

Date and Time:
October 19, 2005; 6–10 p.m.

Continued from page 2

nations build sustainable prosperity, and that excellent competitive research is required to assure a high quality of life for Canadians in the years to come.

There is a common caricature that shows government as a collection of silos, populated by people who can only look up and never communicate with their colleagues doing related work. That picture could not be further from the truth in the matter of the federal agencies that fund research. I have enjoyed great support and effective collaboration with the presidents of the Social Sciences and Humanities Research Council, the Canadian Institutes of Health Research, the National Research Council, the Canada Foundation for Innovation, Genome Canada and other agencies and departments. Our agencies have been collaborating on many bilateral and multilateral ventures, and under the leadership of the National Science Advisor, we are now creating a more distinct umbrella reorganization that will facilitate even greater cooperation and consistency.

The very talented and very busy people who serve as volunteers on NSERC Council deserve my particular gratitude. They have consistently been committed to the support of excellent research, and totally supportive of NSERC staff and myself. Their criticism has always been constructive and their praise generous. Canada is very fortunate that people of such high quality are prepared to volunteer their time and effort in this cause. They clearly believe in the importance of university research in science and engineering and the education of very highly qualified people to build our future.

Finally, let me thank the people at the heart of the great success that is NSERC – the wonderful staff. They are caring, civil, smart, hard-working, and totally devoted to the important work that NSERC does for Canada. They are led by a splendid management team – the best I have ever worked with – who know how to act, on the one hand, as CEO's of their own directorates and, on the other, as corporate officers of NSERC as a whole. No President could ask for more.

Thank you all.

Hot Off the Press

Win the Race to Innovation **is the message of the new package promoting NSERC's programs to Canadian industry.**

Hot off the press, the information kit contains a brochure and fact sheets on the many ways that NSERC assists university-industry partnerships. These include programs that can transform ideas into potentially marketable applications and others that share the costs of providing students or recent doctoral graduates with experience working in industry.

To order copies, please call Robert Gendron at (613) 992-4265.

Atlantic Office Promoting Industry-Researcher Partnerships

The NSERC Atlantic Office has been actively involved in a series of workshops that bring together universities, community colleges, industry and government to promote research and innovation in the region. The three-part workshop series was created to facilitate partnerships between academic researchers and industry and to increase access to and participation in NSERC's Research Partnerships Programs. The workshops have been specifically designed for different stakeholder groups and are being offered throughout the Atlantic region.

The first workshop, *Workshop A: Raising Awareness in the Public Sector*, was offered to the federal and provincial public sectors in the four provincial capitals of Atlantic Canada.

Workshop B: Identifying Opportunities for Partnerships and Proposals highlighted NSERC's partnerships programs with industry, and used case studies, involving NSERC grantees, to illustrate how they work. Speakers from federal and provincial government agencies presented their programs that provide support for research and innovation, giving participants an integrated view of the opportunities available to promote research, innovation and advanced training in the region.

"I found the workshop to be very informative and useful," says Charles A. Cartmill, President of C-Vision Ltd. and Chair of the Canadian Manufacturers and Exporters Innovations Committee. "We need to continue to strengthen the university-industry relationship in research and innovation."

At the end of the second workshop, participants were asked to promote NSERC's and other federal programs to their members, associations and colleagues and to help identify opportunities for the next workshop.

Participants at *Workshop B* in Charlottetown, P.E.I.

Focusing on specific industry sectors, *Workshop C: Generating Proposals* will provide opportunities for matching sector-specific companies with academic researchers to generate proposals for NSERC university-industry partnerships programs. The workshop will be provided on an as-needed basis throughout the region, and the content will be customized for each sector. NSERC's Atlantic Office welcomes invitations to present this workshop; arrangements can be made by contacting the office at (506) 854-8154.

Winnipeg Office Set to Open This Summer

Staffing is underway to fill three positions planned for NSERC's new regional office. The office will be located in the building that houses NRC's Institute for Biodiagnostics in downtown Winnipeg. We anticipate that the regional manager will move in by mid July and that the other positions will be staffed during the summer.

Consultations in the region revealed that "presence," "access to programs," and "promotion," the three main directions being pursued by the NSERC Atlantic Office, are also relevant in the Prairies. This means that the Winnipeg office will benefit from the wealth of experience we have built up in Atlantic Canada during our first year of operation.

The larger size of the Prairie region and the wider diversity in the size of institutions and in their research environment are important differences and they will present challenges as the Winnipeg office strives to establish a meaningful presence for NSERC across the region. Priority will be placed on finding the best ways to serve institutions in Alberta and Saskatchewan, a concern raised during the consultations.

In early June, we began consultations in British Columbia to plan the establishment of NSERC's third office, which we hope to open by the end of the year.

NCE Program Renews Four Networks and Launches a New Initiative

The NCE program is investing up to $55 million over the next three years to extend the activities of four Networks of Centres of Excellence: **AUTO21, the Canadian Language and Literacy Research Network, the Canadian Water Network, and the Stem Cell Network**. The decision followed an in-depth progress review which occurs at the mid-point of each network's seven-year funding cycle.

In addition, the NCE program will launch a $1-million-per-year initiative to help research groups develop new networking partnerships with receptor communities. Winning teams will already have research funding in place, and the NCE contribution will focus on building partnerships. Existing networks, including those whose NCE funding is coming to an end, are not eligible to apply. Interested groups can signal their intention to apply (and take advantage of NCE pre-screening services) **until July, 25, 2005**. Those invited to submit full applications must ensure they arrive no later than **September 12, 2005**.

For more information, visit www.nce.gc.ca.

The Honourable Geoff Regan, Minister of Fisheries and Oceans, Tom Brzustowski, Chair, Networks of Centres of Excellence Steering Committee, and Michael Savage, MP for Dartmouth-Cole Harbour, at the Dartmouth Boys and Girls Club, a partner of the Canadian Language and Literacy Research Network.

Applying for a Discovery Grant This Year?

Researchers are reminded that the new deadline for receipt of a Notification of Intent to Apply for a Discovery Grant (Form 180) is August 1.

The form and instructions can be found on NSERC's Web site at www.nserc.gc.ca/forms/formtable2_e.htm.

NSERC Staff Are Gearing Up for Their Annual Fall Information Sessions

In September, staff from NSERC's Research Grants division will be available to give information sessions for applicants at eligible institutions. To arrange a visit at your institution, please go to www.nserc.gc.ca/grantsvisits.

As well, Scholarships and Fellowships division staff from NSERC, SSHRC and CIHR will be touring four cities to update university administrators on programs and new developments. The schedule is Québec on August 31, and Vancouver, Halifax and Toronto on September 16. Institutions in these localities planning orientation sessions for scholarships and fellowships candidates during this time frame may wish to take advantage of the presence of NSERC officers. Visit www.nserc.gc.ca/scholarshipsvisits for more information.

eBusiness Update

Version 2 of FDSR System Launched

Version 2 of the Financial Data Submission and Reconciliation (FDSR) system was launched in April. New features, based on suggestions from business officers and researchers, include better access to documentation and new search filters, as well as the ability to change passwords.

CIHR, NSERC and SSHRC to Develop a New Web Portal for the Research Community

CIHR, NSERC and SSHRC have expressed their intent to develop ResearchNet, a portal that will facilitate communication and collaboration between researchers, students, peer reviewers and research administrators. The portal will provide a common place where the Canadian research community can obtain information, apply for funding, share ideas, collaborate on research projects, perform peer review activities, and manage awards.

affaires ebusiness

The three granting agencies recently began consultations to ensure the portal's features will meet the community's needs and to develop a multi-year project plan.

Stabilizing the On-Line System

NSERC is continuing its focus on improving the performance of the electronic application submission system. For the 2005 competition, modifications are being made to the underlying technical structure, and a new electronic attachment process will be introduced that allows the submission of pre-converted PDF documents.

These and other changes are designed to speed the processing of applications under the high volumes expected this fall. Consult the Web site over the summer for more details.

International Collaborative Opportunities

Research in Agriculture with Israel

Agriculture and Agri-Food Canada (AAFC) and the government of Israel have developed a framework to support a limited number of collaborative research projects in areas of mutual interest. These areas were identified following a two-day workshop involving researchers and officials from both countries. A joint Call for Proposals has been issued by Israel's Binational Agricultural Research and Development Fund (BARD) and AAFC, at www.bard-isus.com. NSERC encourages the participation of Canadian university researchers, who may participate as collaborating investigators, provided they bring their own funds.

NSERC has not reserved funds for this initiative; however, funding is available on a competitive basis within the regular budget of the Special Research Opportunity program.

Canadian university researchers interested in responding to this opportunity should contact their counterparts at AAFC to explore proposals.

International Materials Research Congress in Mexico

The XIV International Materials Research Congress will be held in Cancun, August 21-25, 2005. The Congress program includes a workshop organized by the Inter-American Collaboration in Materials Science (CIAM), an initiative in which NSERC and eight other national research funding agencies support opportunities for new interactions among materials researchers. The workshop will provide an excellent opportunity for Canadian researchers to learn more about CIAM activities and opportunities. For information on the Congress and on the workshop (abstracts, keynote speakers and members of the organizing committee), visit www.viep.buap.mx/imrc2005.htm. The CIAM workshop is Symposium No. 20 in the Congress program. Why not send your students with a Poster!

Our apologies ...

There was an error in the 3rd paragraph of the editorial in the March 2005 edition (cover page) of *Contact* regarding the combined base budgets of the three councils. The correct wording is "double their level in **1997-98**."

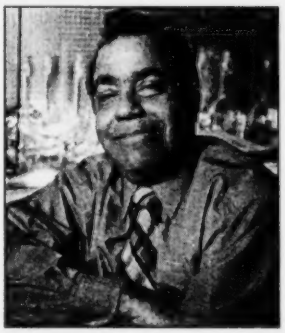
Effective Collaboration and Dissemination Activities Transform an Industry

Dr. Jacob Masliyah has been very successful in bringing fundamental science and engineering to the oil sands industry. When his NSERC Industrial Research Chair (IRC) in Oil Sands was launched in 1996, Syncrude Canada Ltd. was the first industrial partner on board. The second five-year term of the Chair program saw many other major players in the petroleum and petrochemical sectors become involved as well – Champion Technologies, Albian Sands Energy Inc., Nalco Canada Inc., Canadian Natural Resources Ltd. and Suncor Energy Inc.

The Chair program focuses on understanding the fundamentals underlining bitumen extraction and upgrading. As a result of this Chair, a good understanding of bitumen recovery has been established and oil sands extraction has moved from the domain of experience and educated guesses, to a science founded on solid physical principles. By concentrating on pre-competitive research, the Chair has managed to foster a collaborative effort involving most of the key players in the Canadian oil sands industry.

Not only has the direct training aspect of the IRC been valuable, as many of Dr. Masliyah's students have been hired by his sponsoring partners, but his IRC was pivotal in establishing an undergraduate program in oil sands at the University of Alberta that provides even more new graduates to the industry.

The dissemination activities for Dr. Masliyah's Chair have been outstanding: they include a multitude of papers, conference presentations and invited lectures arising from his work; the industry-oriented short course that Dr. Masliyah gives with his colleague and fellow IRC holder Dr. Murray Gray, which is held several times a year, frequently has a waiting list, and has become the standard training for many of the sponsors' new employees coming into the oil sands industry; Dr. Masliyah's coordination of the August 2004 special issue on oil sands bitumen extraction in the *Canadian Journal of Chemical Engineering*, which has become a starter textbook for the industry; and monthly public talks by members of Dr. Masliyah's Research Group.



Jacob Masliyah

In addition, Drs. Masliyah and Gray organize a well-attended symposium every 18 months, attracting over 250 participants, nationally and internationally, from academia, industry, and government. The symposium series has been a vital forum for discussion on the science and technology of oil sands and is so valuable that one executive in the industry checks his calendar to plan his holidays around the symposium dates!

The IRF Program Gets a New Focus, Process and Name

NSERC is making a number of changes to its Industrial Research Fellowships (IRF) program, which offers recent doctoral graduates the opportunity to conduct postdoctoral research in Canadian industry, to ensure that it better meets the needs of industry.

In late 2004, the terms of the program were expanded to permit fellows to dedicate a greater portion of their time to "technology inflow activities" – in other words, to seeking out technologies being used in other universities, government, industrial environments, or countries, and bringing these technologies into their company and further developing them. This action was taken to respond to concerns that small and medium-sized companies are lacking in their capacity to stay abreast of, and capitalize on, discoveries made and technologies developed elsewhere.

Starting in September this year, the evaluation process will change, and nominations will be accepted at any time throughout the year, and NSERC will shorten the response time from three months to six weeks.

And, finally, to reflect the broadened scope of the program, in September the name of the program will be changed to the Industrial R&D Fellowships (IRDF) program.

For more information on the program, please contact Sarah Tait (sarah.tait@nserc.ca).

New Plan for Subatomic Physics

The subatomic physics community is currently gearing up to prepare a new plan for the discipline. Although the process is at a very early stage, the plan will identify the community's priorities for ongoing and new projects, and give some indications of the direction of subatomic physics for the coming five to ten years.

A committee is being put together, and extensive consultation with the subatomic physics community will take place over the summer and into the fall. NSERC will provide financial support, but the process and the plan will be driven by the subatomic physics community. The last plan was published in the spring of 2001; it's expected that the new one will be ready at the time of the annual meeting of the Canadian Association of Physicists in June 2006.

For additional information, please contact Kate Wilson (Manager, Physics and Astronomy) at NSERC, at (613) 995-7752.

Competition News

Research Grants

Here is an overview of the NSERC Discovery, Research Tools and Instruments and Major and Subatomic Facilities Access Grants resulting from the 2005 competition. A comprehensive picture of the funding (including instalments) by discipline is shown on page 9.

For a detailed list of awards and statistics, visit www.nserc.gc.ca/programs/result/2005/rg/index_e.htm.

TIPS...

For tips on How to Prepare a Winning Proposal, visit our Web site at www.nserc.gc.ca/programs/winprop_e.htm.

Program	Number of Applications	Awards	Success Rate (%)	Total (Millions of $) Requested	Awarded
Discovery Grants (including Subatomic Physics)	3,201	2,396	75	172.4	71.1
Research Tools and Instruments Grants	1,390	588	42	92.1	34.7
Major and Subatomic Facilities Access Grants	64	32	50	12.5	5.6
TOTAL	**4,655**	**3,016**	**65**	**277**	**111.4**

Scholarships and Fellowships

Following their review of over 4,300 applications in February, NSERC's eight scholarships and fellowships selection committees offered almost 1,900 NSERC Postgraduate Scholarships and Postdoctoral Fellowships as well as 813 Canada Graduate Scholarships (CGS). This is the third year these prestigious scholarships have been awarded to the top-ranked applicants in the NSERC postgraduate scholarships competition. Should any of the initial CGS offers be declined, NSERC will offer a CGS to the next most highly ranked applicant awarded a postgraduate scholarship in the same program and discipline grouping. Final lists of 2005 CGS holders will be placed on NSERC's Web site in early 2006 when all the available CGS awards have been taken up.

TIPS...

For tips on how to prepare a winning scholarship or fellowship proposal, visit our Web site at www.nserc.gc.ca/programs/sf/pgs_pdf_tips_e.htm.

Centres for Research in Youth, Science Teaching and Learning (CRYSTAL) Selected

The recipients of five Centres for Research in Youth Science Teaching and Learning (CRYSTAL) were recently announced. The selected centres are based at the University of New Brunswick, the Université de Sherbrooke, the University of Manitoba, the University of Alberta, and the University of Victoria. The University of Alberta will take on the additional role of overall national networking and leadership.

Each centre will receive $1 million over five years to conduct research into science and mathematics teaching and learning at the K-12 level and to develop practical solutions to problems in this area.

For more information on the CRYSTAL pilot program, visit www.nserc.gc.ca/about/initiatives/crystal_e.htm.

2005 Applications and Awards

Postgraduate Scholarships (PGS) and Canada Graduate Scholarships (CGS)

Selection Committee	Number of Applications	Number of PGS Awards	Number of CGS Awards	Success Rate (%)
Engineering	560	267	135	71.8
Electrical Engineering and Computing Sciences	603	287	145	71.6
Mathematical Sciences	213	110	51	75.6
Physics and Astronomy	228	121	54	76.8
Chemistry	243	120	58	73.3
Earth Sciences and Ecology	486	215	119	68.7
Cellular and Molecular Biology	509	233	124	70.1
Life Sciences and Psychology	520	232	127	69.0
TOTAL	**3,362**	**1,585**	**813**	**71.3**

Postdoctoral Fellowships (PDF)

Selection Committee	Number of Applications	Number of Awards	Success Rate (%)
Engineering	166	48	28.9
Electrical Engineering and Computing Sciences	123	35	28.5
Mathematical Sciences	67	19	28.4
Physics and Astronomy	80	23	28.8
Chemistry	111	34	30.6
Earth Sciences and Ecology	150	44	29.3
Cellular and Molecular Biology	137	39	28.5
Life Sciences and Psychology	122	35	28.7
TOTAL	**956**	**277**	**29.0**

(continued on page 9)

2005 Discovery Grants Funding, Including Ongoing Instalments

Grant Selection Committee (GSC)	Discovery Grants[1]		Research Tools & Instruments[2]	
	No.[4]	$ (000's)	No.[4]	$ (000's)
Animal Biology[3]	35	1,233		
Animal Physiology[3]	25	1,021		
Integrative Animal Biology	423	15,943	43	2,357
Cell Biology	368	14,244	38	1,724
Molecular and Developmental Genetics	295	11,731	16	807
Plant Biology and Food Science	356	13,949	36	1,769
Evolution and Ecology	590	17,713	46	1,437
Psychology: Brain, Behav. and Cog. Sci.	469	13,062	23	719
LIFE SCIENCES	**2,561**	**88,896**	**202**	**8,813**
Analytical and Physical Chemistry	355	17,316	30	2,706
Inorganic and Organic Chemistry	338	18,414	50	3,850
General Physics	168	5,891	9	634
Condensed Matter Physics	270	10,390	25	2,046
Space and Astronomy	185	7,188	2	81
Solid Earth Sciences	343	11,646	18	797
Environmental Earth Sciences	381	10,336	33	1,720
PHYSICAL SCIENCES	**2,040**	**81,181**	**167**	**11,834**
Statistical Sciences	307	5,611	6	273
Pure and Applied Mathematics – A	379	6,385	2	25
Pure and Applied Mathematics – B	279	4,882	2	147
MATHEMATICAL SCIENCES	**965**	**16,877**	**10**	**445**
Chemical and Metallurgical Engineering	615	19,517	47	4,157
Civil Engineering	554	14,134	31	2,227
Communications, Computers, and Components Engineering	503	13,893	21	1,613
Electromagnetics and Electrical Systems Engineering	329	11,149	23	1,127
Mechanical Engineering	622	15,941	44	2,554
Industrial Engineering	280	6,742	5	194
ENGINEERING	**2,903**	**81,376**	**171**	**11,871**
Computing and Information Sciences[3]	1	33		
Computing and Information Sciences – A	442	10,988	18	927
Computing and Information Sciences – B	534	14,433	11	486
COMPUTING & INFORMATION SCIENCES	**977**	**25,453**	**29**	**1,412**
Interdisciplinary	119	3,424	9	346
SUB-TOTAL	**9,565**	**297,207**	**588**	**34,722**
Accelerator Grant for Exceptional New Opportunities (AGENO)	15	875		
Leadership Support Initiative (LSI)	7	271		
Institutes and Initiatives[1]	4	4,003		
Subatomic Physics[2]	158	17,159	14	3,520
TOTAL	**9,749**	**319,515**	**602**	**38,242**

1 Includes Individual, Group, Project and Steacie Supplement. Leadership Support, Accelerator Grants, Subatomic Physics and the four Institutes (three in Mathematics and one in Physics) are reported as separate lines.
2 Includes Research Tools and Instruments Category 1 (a moratorium is in effect for RTI 2 and 3 ***except for Subatomic Physics***). Certain committees review RTI jointly which may cause significant variations in funding rate between the two committees.
3 Historical committees.
4 Number represents principal applicants, does not include the number of co-applicants.

Special Research Opportunity Program

Special Research Opportunity (SRO) grants enable researchers to pursue new research opportunities as they emerge, or develop the collaborations, whether national or international, needed to take advantage of these opportunities. Since the program was launched two years ago, NSERC has received 202 letters of intent; of the 82 individuals or groups invited to submit an application, 55 applications have been reviewed and 40 grants awarded. For more information on the SRO program and funding decisions, visit www.nserc.ca/professors_e.asp?nav=profnav&lbi=a4.

NSERC also funds special initiatives through the SRO program, such as Inter-American Collaboration in Materials Research (CIAM) proposals. CIAM is an international multi-agency initiative through which national research funding agencies of participating countries (NSERC is the Canadian agency) support opportunities for new interactions among materials researchers that leverage the strengths of each country's scientific community.

Following a two-tier review process, 22 of the 49 applications received by NSERC in the 2004-05 competition were recommended for funding by the NSERC selection committee; after negotiations with the counterpart agencies, 9 were ultimately funded.

Julie Payette-NSERC Research Scholarships

Twenty-four graduate students have been selected to receive the prestigious Julie Payette-NSERC Research Scholarships. Named in honour of Canadian astronaut Julie Payette, the scholarships, which are valued at $25,000, are awarded to the most outstanding Postgraduate Scholarships M candidates as determined by NSERC's Scholarships and Fellowships Selection Committees.

The list of the 2005 winners can be found at www.nserc.gc.ca/programs/julie_e.htm.

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University Faculty Awards

Twenty-three highly qualified women researchers will take up faculty positions in universities across Canada as a result of their success in the 2005 University Faculty Awards competition.

Through the program, which was designed to address the under-representation of women and Aboriginal peoples in faculty positions in Canadian universities, NSERC will provide the recipients with $40,000 per year towards their salary for up to five years. In addition, the recipients were successful in the Discovery Grants competition and will receive funding for their research through that program during tenure of their award.

For a listing of the current winners, visit www.nserc.gc.ca/programs/result/2005/ufa/ufa_results_e.htm.

Collaborative Health Research Projects – Program News

More than $5 million in funds over three years has been awarded in the Collaborative Health Research Projects competition, which is held jointly each year by NSERC and the Canadian Institutes of Health Research. The competition targets high-quality health-related research projects that bring together researchers from the medical, natural sciences and engineering fields.

Here are two examples of the 17 projects approved for support that provide some insight into the breadth of applications the program supports:

- Dr. Susan Scollie of the University of Western Ontario will receive $44,623 to study frequency compression in hearing aids for children. Her project draws on expertise from audiology, engineering, psychology and speech-language pathology to address the problem of enhancing quiet, high-pitched sounds.
- A team headed by Dr. Sophie Michaud at the Université de Sherbrooke will receive $666,540 to develop a GIS-based system to monitor the risk of bacterial infection from water by comparing bacteria levels for different land use activities to the occurrence of related infections in humans.

The next competition is already underway, with 234 Notifications of Intent to apply received by the May 2 deadline. In July, about a quarter of these applicants will be invited to submit full proposals by October 3, 2005, the final deadline.

For more CHRP program information, visit www.nserc.gc.ca/index.htm under For Professors, then Grants Programs.

Timing Critical in Idea to Innovation Program

When the Idea to Innovation (I2I) Selection Committee last met, at the end of March, NSERC staff and committee members used the occasion to reflect on the achievements in the program's first year and find ways to improve feedback to universities.

There was a consensus among Committee members that the role played by University Industry Liaison Offices is critical to the success of proposals submitted to the program. It was noted that while the applications submitted were generally strong, as evidenced by a success rate of 50%, at least a third of the rejected proposals should not have been submitted because they were at a stage that is too early for the program. These projects appeared to be research projects rather than a plan for the final development of a technology.

Applicants are advised to work closely with their liaison office, or its equivalent, and to be sure they have a working concept of the proposed technology.

Canada's Major Infrastructure Systems to Be Studied

NSERC and Public Safety and Emergency Preparedness Canada (PSEPC) recently announced that six multi-partner projects will receive a total of $2.98 million from the two organizations over the next three years to study the interdependencies of Canada's major infrastructure systems.

The funded projects cover a variety of themes, from information exchange and decision coordination, to modelling and protecting Canada's water and health infrastructure. Non-academic partners involved in the projects are providing some $650,000 in additional financial support and $1 million in kind. They represent such varied organizations as consulting firms, telecommunications companies, hydro-electric suppliers, cities, and government departments.

Major infrastructures such as hydro and water utilities, communications, banking and transportation networks, and hospitals, have many complex interaction points and depend critically on each other to function properly. The program, it's hoped, will lead to new knowledge, techniques and policies to better assess, manage and mitigate risks resulting from these interdependencies.

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